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ABSTRACT

Described in this report are the findings from a Kentucky state-wide study of the perceptions of vocational educators, special educators, and vocational rehabilitation workers concerning vocational programming for the handicapped. Numerous tables depict and compare agency ratings regarding the importance and present status of the following variables: Direct instructional services for the handicapped, support services, professional training of agency personnel, cooperative efforts among agencies, and problems encountered. The conclusions section includes a model delivery system for serving handicapped students, certification considerations for the various educational personnel, and recommendations for pre- and in-service personnel training. (Author/HD)

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FINAL REPORT

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Department of Vocational Education
College of Education
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Lexington

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ABSTRACT

Described in this report are the findings from a state-wide study of the perceptions of vocational educators, special educators, and vocational rehabilitation workers concerning vocational programming for the handicapped. Numerous tables depict and compare agency ratings regarding the importance and present status of the following variables: direct instructional services for the handicapped, support services, professional training of agency personnel, cooperative efforts among agencies, and problems encountered. The conclusions section includes a model delivery system for serving handicapped students, certification considerations for the various educational personnel, and recommendations for pre- and in-service personnel training.

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PREFACE

Presented in this supplement are the results of a statewide survey of special education, vocational education, and vocational rehabilitation personnel. The purpose of the survey was to ascertain the perceptions of agency personnel regarding vocational education for the handicapped in Kentucky. The introductory comments, the literature review, and the research procedures, all of which appear in the body of the project's final report, are omitted from the supplement. The supplement provides the reader with a more descriptive presentation of the data and specific recommendations and implications based on the research findings.

The Findings section of the supplement contains tables and narrative descriptions related to the data obtained from the questionnaire used in the statewide survey.

The Conclusions section contains implications and recommendations based on a wider variety of data, including: the research findings as presented in the final report for this project; a survey of the literature; a nationwide survey of state directors of special education, vocational education, and vocational rehabilitation; and inferences drawn from two summer workshops (1973, 1974 - University of Kentucky) designed to prepare vocational education personnel to more effectively work with handicapped students.

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FINDINGS

The results obtained through analysis of the questionnaire responses are presented by the major areas investigated, namely: direct instructional services/functions, support services, professional training, cooperative efforts, support services desired, and problems encountered in working with the handicapped. These results will be reported separately for Special Education (SE), Vocational Education (VE), and Vocational Rehabilitation (VR).

Direct Instructional Services/Functions

Direct instructional services were defined as those activities or functions delivered directly by teachers and/or counselors which were meant to provide instruction for Handicapped (H) students or clients in areas directly or indirectly related to vocational competencies. Respondents from each of the three agencies were asked to react to a series of these services by rating each according to (1) its importance; (2) its status, the amount of emphasis currently being placed on fulfilling this service; and (3) according to the formal preparation the respondent had to prepare him to provide the service and the amount of preparation he felt he should have had. All ratings were made on a five point scale with one being low and five high.

Importance

Presented in Table 1 were the mean ratings of how each agency responded to the importance of a series of direct instructional services. Asteristics indicate significant differences among the agency ratings beyond the .05 level of significance. The lowest rating (*) is significantly different than the highest. An asteristic by the two lowest indicates they are both significantly different from the highest.

TABLE 1

AGENCY RATINGS OF THE IMPORTANCE
OF VARIOUS DIRECT INSTRUCTIONAL SERVICES

Instructional Service	Agency SE $\bar{X}$	SE Rank	VE $\bar{X}$	VE Rank	VR $\bar{X}$	VR Rank
Social Skill Training	4.48	4	3.86*	7	3.98	6
Specific Vocational Skill Training	4.63	3	4.24*	1	4.32	1
Basic Academic Training	4.21	8	3.85*	8	4.03	4
Vocational Skill Improvement Training	4.32	6	4.14	2.5	3.99	5
Citizenship and Community Awareness Training	4.46	5	4.05	6	3.69*	8
Pre-Vocational Skill Training	4.66	1	4.08	4.5	3.91*	7
Development of Communication Skills	4.64	2	4.14*	2.5	4.23	2
Occupational Exploration Activities	4.29	7	4.08	4.5	4.09	3
TOTAL (Average)	4.46*		4.05		4.03	

*$p < .05$

In addition to checking for significant differences in the mean agency ratings, the rank order of importance placed on each service by each agency was considered. This allowed a priority listing within each agency as well as a visual comparison of the priority rankings of each agency. However, it should be noted that the mean ratings were very close in many instances, making rank differential somewhat questionable.

Agency differences were recorded for six of the eight services. The vocational education group placed significantly less importance than special education on providing (1) social skill training, (2) specific vocational skill training, (3) basic academic training, and (4) development of communication skills. Vocational rehabilitation placed less importance than special education on citizenship and community awareness training, and on pre-vocational skill training.

Special education consistently ranked the importance of instructional services higher than did vocational education or vocational rehabilitation.

Considering the rank order, agency differences in priority areas could be identified. All groups were concerned with providing specific vocational skill training and developing communication skills in the handicapped. However, when considering vocational skill improvement training, only vocational education gave it a high priority.

According to the rankings assigned, vocational education viewed its job as specific vocational training, up-grade training, and development of communication skills. To a lesser degree they ranked occupational exploration and pre-vocational activities as being important. Basic academic training, social skill training, and citizenship and community awareness were considered least important by the vocational educators.

Special education placed importance on pre-vocational training, development of communication skills, specific vocational training, and social/citizenship training. Considered least important by special education were basic academic training, occupational exploration, and vocational skill improvement.

Vocational rehabilitation gave priority to the importance of specific vocational training, development of communication skills, and occupational exploration. They placed the least emphasis on citizenship, pre-vocational, and social skill training.

Status

Presented in Table 2 were the mean ratings of the status, or the amount of emphasis currently being placed on fulfilling each instructional service. As was the case with importance, asteristics indicated significant differences among agency ratings.

TABLE 2

AGENCY RATINGS OF THE STATUS OF
VARIOUS DIRECT INSTRUCTIONAL SERVICES

	AGENCY					
	SE		VE		VR	
Instructional Service	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Social Skill Training	3.13	5	2.72*	8	2.96	8
Specific Vocational Skill Training	2.95*	7	3.29	1	3.77	1
Basic Academic Training	3.71	1	3.04*	3	3.40	3
Vocational Skill Improvement Training	2.66*	8	3.22	2	3.45	2
Citizenship and Community Awareness Training	3.30	4	2.94	7	3.06	7
Pre-Vocational Skill Training	3.54	3	3.01*	5	3.17	6
Development of Communication Skills	3.59	2	3.03*	4	3.22	5
Occupational Exploration Activities	3.05	6	2.95	6	3.28	4
TOTAL (Average)	3.24		3.03		3.29*	

*$p < .05$

Special education ranked the status of social skill training, basic academic training, pre-vocational training, and development of communication skills significantly higher than did vocational education. Vocational rehabilitation rated the status of specific vocational training and vocational skill improvement training higher than did special education.

Considering rank order of status, both special education and vocational education tended to rank their area of responsibility higher on status than the responsibility areas of others. However, vocational rehabilitation placed the highest status on the vocational education related areas of specific vocational training and skill improvement training. Considering all agencies, the least emphasis was being placed on social skill training, citizenship and community awareness training, and occupational exploration.

All felt that basic academic training was receiving emphasis. However, little similarity in ranking was present for other areas. Vocational education and vocational rehabilitation were very close in their ranking, but special education differed greatly. Again, the agencies tended to rate their own responsibilities high and those of others low, possibly indicating a lack of interagency understanding.

Level of Preparation

For each of the direct instructional services, the respondents were asked to rate the amount of preparation they had and the amount of preparation they felt they should have had to prepare them to provide each service to the handicapped. These data were presented in Table 3. Due to space limitations on the table, the rank column was eliminated. The number in parentheses following each mean rating represented the rank order.

Respondents from all agencies consistently rated themselves as needing significantly more preparation than they had. The only exception was for providing basic academic training. Both special education and vocational rehabilitation rated themselves as possessing as much preparation as was needed. In fact, special educators felt they had received more formal preparation than was needed to provide basic academic training to the handicapped.

Discrepancies between the rankings of had and should have had were as follows: (1) considering the rank orders, special educators felt they needed more training than they had received in the development of communication skills, in providing social skill training, and in occupational exploration activities. They also felt their training may have placed too much emphasis on providing basic academic training; (2) vocational educators felt they needed more training than they had received in the development of communication skills and in providing occupational exploration activities. They also felt their training

TABLE 3

AGENCY RATINGS OF THE LEVEL OF PREPARATION HAD AND NECESSARY TO PROVIDE DIRECT INSTRUCTIONAL SERVICES

Instructional Service	Agency					
	SE		VE		VR	
	Had	Should	Had	Should	Had	Should
Social Skill Training	3.14(5)	4.14(2)	2.39(8)	3.61(8)	3.04(4)	3.59(3)
Specific Vocational Skill Training	2.02(7)	3.82(7)	3.00(2)	3.96(2.5)	2.86(5)	3.54(5)
Basic Academic Training	4.13(1)	4.04(6)	3.12(1)	3.83(5)	3.20(1)	3.57(4)
Vocational Skill Improvement Training	1.88(8)	3.55(8)	2.75(5)	3.85(4)	2.85(6)	3.51(6)
Citizenship and Community Awareness Training	3.52(4)	4.05(5)	2.58(7)	3.68(7)	2.77(7)	3.41(7)
Pre-Vocational Skill Training	3.59(2)	4.13(3)	2.91(3)	3.76(6)	2.67(8)	3.30(8)
Development of Communication Skills	3.55(3)	4.20(1)	2.86(4)	4.02(1)	3.11(2.5)	3.68(2)
Occupational Exploration Activities	2.88(6)	4.07(4)	2.66(6)	3.96(2.5)	3.11(2.5)	4.02(1)
TOTAL (Average)	3.09	4.00	2.78	3.83	2.95	3.58

had possibly placed too great an emphasis on providing basic academic training, and pre-vocational skill training; (3) vocational rehabilitation people were quite consistent in ranking the importance of the training they had received as being in line with the training they should have received. However, they felt they could use somewhat more preparation in providing occupational exploration activities and, as was the case with the other agencies, that more emphasis than necessary was placed on providing basic academic training.

Considering cross-agency rankings of what preparation should be emphasized, some differences were apparent. Vocational educators felt that the least emphasis should be placed on providing social skill training, the others ranked it much higher. As would be expected, vocational educators also felt that more emphasis should be placed on providing specific vocational skill training for the handicapped. Special educators felt more emphasis should be placed on pre-vocational activities.

Support Services

Support services were defined as those services, functions, or activities which might be needed by the handicapped but which were not necessarily instructional in nature. Respondents were asked to react to a list of support services by rating each according to (1) its importance, (2) its status, and (3) their familiarity with the procedures required for delivering or acquiring each service. Ratings were made on a five point scale, one being low and five high.

Importance

Presented in Table 4 were the mean ratings of the importance associated with various support services for the handicapped. Agency differences were recorded for nine of the 15 support services listed on the questionnaire.

TABLE 4

AGENCY RATINGS OF THE IMPORTANCE OF
VARIOUS SUPPORT SERVICES FOR THE HANDICAPPED

Support Service	Agency					
	SE		VE		VR	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Securing Medical Exams	4.32	8	3.87*	10	4.29	5
Providing Transportation	4.16	10.5	3.67*	13	3.73	13
Pre-Vocational Evaluation	4.46	4	3.96*	7	4.23	7
Securing Medical/Hospital Care	4.04	13	3.57*	14	4.33	4
Coordination of Work Study Experience	4.41	6	3.95	8	3.90	10
Assistance in Securing Employment Necessities (tools, equip., licenses, etc.)	3.93	14	3.69	12	3.93	9
Occupational Evaluation and Diagnosis	4.39	7	3.90*	9	4.34	3
Vocational Counseling for Student	4.48	3	4.35	1	4.44	1
Securing Tuition for Training	4.25	9	3.98	5.5	4.12	8
Assistance in Job Placement	4.71	1	4.29*	2	4.38	2
Securing Prosthetic Appliances	4.16	10.5	4.05	4	4.27	6
Parent Counseling Services	4.45	5	3.98	5.5	3.79*	12
Securing Funds for Trainee Supervision by Employers	3.77	15	3.48	15	3.49	15
Mainstreaming	4.50	2	3.80*	11	3.84	11
Use of Hands on Training Experience	4.13	12	4.22	3	3.52*	14
TOTAL	4.28		3.92*		4.04	

*p< .05

As was the case for direct instructional services, the majority of the differences was between vocational education and special education. The mean importance ratings by vocational educators were significantly lower than by special educators for securing medical exams, providing transportation, pre-vocational evaluation, occupational evaluation, assistance in job placement, and mainstreaming.

The areas which special education rated significantly higher than vocational education dealt mainly with pre-training evaluation activities. Apparently vocational educators were saying that such evaluation was not so much a vocational education responsibility.

Vocational education was significantly lower than vocational rehabilitation in only one area, securing medical/hospital care. It would be expected that vocational rehabilitation would place a higher priority on this support service.

Vocational rehabilitation rated the importance of parent counseling and use of hands on training experiences significantly lower than did vocational education or special education.

Considering the rank order of the importance of the support services by agency, several differences were apparent (Table 4). Mainstreaming was a major priority only to special education; use of hands on experiences only to vocational education; and occupational evaluation and diagnosis, securing medical examinations, and securing medical/hospital care only to vocational rehabilitation.

The agencies appeared to rate the importance of support services which they provided to be the most important. Therefore, their next highest ratings were more significant to observe.

Special education's third highest rating was for vocational counseling, their fourth for pre-vocational evaluation, their fifth for parent counseling,

and their sixth for coordination of work study experiences.

Vocational education's fifth and sixth ratings were for securing tuition for training and parent counseling, their seventh for pre-vocational evaluation, and their eighth for coordination of work study experience.

Vocational rehabilitation's first 10 priorities fell in line with services which they provide. Eleventh was mainstreaming and 12th parent counseling.

All agencies agreed on the importance of (1) parent counseling and (2) assistance in job placement. From that point on, divergent opinion was expressed. On the lower end of the ratings, all agencies agreed that the least important services were (1) securing funds for trainee supervision by employers, (2) providing transportation, and (3) securing employment necessities. This is not to imply that these services are unimportant, only that others appeared to be more important.

Status

Presented in Table 5 were the mean ratings and rank orders of the status, or current emphasis which the agencies felt was being placed on fulfilling each support service. Agency differences were recorded for 12 of the 15 support services listed. In nearly all the cases, both special education and vocational education rated the status of the support service to be significantly less than the rating given by vocational rehabilitation. The reason why vocational rehabilitation rated the services higher was, no doubt, due to the fact that rehabilitation has the responsibility of providing a majority of the services. They rated themselves as doing a better job than that perceived by the other agencies. Vocational and special education rated the services as being somewhat less than "medium," while vocational rehabilitation rated them as being "medium" to "high" in status.

TABLE 5

AGENCY RATINGS OF THE STATUS OF
VARIOUS SUPPORT SERVICES FOR THE HANDICAPPED

Support Service	Agency SE $\bar{X}$	SE Rank	VE $\bar{X}$	VE Rank	VR $\bar{X}$	VR Rank
Securing Medical Exams	3.05*	3	2.74*	11	4.24	1
Providing Transportation	2.82*	8	2.89*	5	3.54	10
Pre-Vocational Evaluation	3.16*	2	2.78*	10	3.72	5
Securing Medical/Hospital Care	2.64*	14	2.63*	13	4.23	2
Coordination of Work Study Experience	2.95	4	3.11	3	3.35	11
Assistance in Securing Employment Necessities (tools, equipment, licenses, etc.)	2.68*	12	2.67*	12	3.67	8
Occupational Evaluation and Diagnosis	2.88*	5.5	2.86*	6	3.80	4
Vocational Counseling for Student	2.88*	5.5	3.09*	4	3.66	9
Securing tuition for Training	2.80*	9	2.81*	9	3.69	6.5
Assistance in Job Placement	2.86*	7	3.17*	2	3.69	6.5
Securing Prosthetic Appliances	2.66*	13	2.87*	7	4.15	3
Parent Counseling Services	2.79	10.5	2.59	14	2.91	15
Securing Funds for Trainee Supervision by Employers	2.30*	15	2.49*	15	3.14	12
Mainstreaming	3.27	1	2.84*	8	3.03	13
Use of Hands on Training Experience	2.79	10.5	3.20	1	2.99	14
TOTAL	2.83*		2.85*		3.59	

*$p < .05$

Referring to Table 4, importance, and Table 5, status, provided some insight into areas which might need strengthening, in terms of the actual service provided or in terms of better interagency understanding. Considering vocational educators, the rankings of importance pretty well coincided with the rankings for status, with the following exceptions: providing transportation and coordination of work study experience were given less importance than the current status and; securing tuition for training and parent counseling had less status than their perceived importance. There was apparent agreement in the importance and status of most other services.

Special educators felt a disparity between the importance and status of job placement and parent counseling. In both cases they gave the service a higher importance rating than the corresponding status rating. Vocational rehabilitation personnel felt a disparity between the importance and status of vocational counseling for students and assistance in job placement, and indicated that the importance was greater than the current status. They also rated the status of securing medical exams as being higher than its perceived importance, ranking it first in status and fifth in importance.

Familiarity

Familiarity referred to how acquainted the respondents were with the procedures required for delivering or acquiring each service, function, or activity. These data were presented in Table 6.

As was the case with the status ratings, vocational education and special education consistently rated familiarity lower than did vocational rehabilitation, with special education being significantly lower for 11 of 15 services and vocational education lower for 13 of 15 services. In only one case, mainstreaming, was special education significantly higher. Overall, vocational education was the least familiar with acquiring support services for the handicapped.

TABLE 6

AGENCY RATINGS OF THEIR FAMILIARITY WITH THE PROCEDURES REQUIRED TO SECURE VARIOUS SUPPORT SERVICES FOR THE HANDICAPPED

Support Service	Agency SE $\bar{X}$	SE Rank	VE $\bar{X}$	VE Rank	VR $\bar{X}$	VR Rank
Securing Medical Exams	3.00*	6	2.53*	10	4.18	2
Providing Transportation	2.80*	8	2.62*	8	3.94	6
Pre-Vocational Evaluation	3.18*	2.5	2.66*	7	3.99	3
Securing Medical/Hospital Care	2.45*	11	2.22*	13	4.20	1
Coordination of Work Study Experience	3.18	2.5	2.96	4	3.24	12
Assistance in Securing Employment Necessities (tools, equipment, licenses, etc.)	2.25*	12.5	2.43*	12	3.64	11
Occupational Evaluation and Diagnosis	2.64*	10	2.70*	6	3.84	8
Vocational Counseling for Student	3.02*	5	3.08*	2	3.95	4
Securing Tuition for Training	2.25*	12.5	2.54*	9	3.83	9
Assistance in Job Placement	2.86*	7	3.14*	1	3.82	10
Securing Prosthetic Appliances	2.07*	15	2.04*	14	3.94	6
Parent Counseling Services	3.13	4	2.46*	11	3.02	15
Securing Funds for Trainee Supervision by Employers	2.13*	14	2.02*	15	3.10	13
Mainstreaming	4.18	1	2.73*	5	3.06*	14
Use of Hands on Training Experience	2.75	9	3.03	3	2.94	6
TOTAL	2.79*		2.61*		3.65	

*$p < .05$

Vocational educators were least familiar with securing funds for trainee supervision by employers, securing prosthetic devices, securing medical/hospital care, securing employment necessities, and parent counseling. Special educators were most unfamiliar with nearly the same list of services.

Worthy of comparison by administrators was the rank orders by agency of importance, status, and familiarity. This would be important for two reasons. First, respondents might consistently rank a service low on importance and status because they are unfamiliar with it. Second, inconsistencies between importance, status, and familiarity ratings could be used as an indication of need for inservice education or inappropriate program direction. These comparisons in ranking were presented in Table 7.

For vocational education personnel, parent counseling appeared to be an area of inconsistency in rating. Low status and familiarity were recorded. However, this service was given a rather high priority in importance. Other services with high importance and low familiarity were securing prosthetic devices and securing tuition for training. Services consistently rated low in importance, status and familiarity included securing medical assistance, employment necessities, and funds for trainee supervision.

Inconsistencies for special education were found for occupational evaluation and diagnosis and securing tuition for training. For vocational rehabilitation, inconsistencies in rank were found for assistance in job placement and occupational evaluation and diagnosis.

TABLE 7

SUMMARY OF RANK ORDER OF IMPORTANCE (I), STATUS (S), AND FAMILIARITY (F) OF SUPPORT SERVICES BY AGENCY

Support Service	Agency								
	SE			VE			VR		
	I	S	F	I	S	F	I	S	F
Securing Medical Exams	8	3	6	10	11	10	5	1	2
Providing Transportation	10.5	8	8	13	5	8	13	10	6
Pre-Vocational Evaluation	4	2	2.5	7	10	7	7	5	3
Securing Medical/Hospital Care	13	14	11	14	13	13	4	2	1
Coordination of Work Study Experience	6	4	2.5	8	13	4	10	11	12
Assistance in Securing Employment Necessities (tools, equipment, licenses, etc.)	14	12	12.5	12	12	12	9	8	11
Occupational Evaluation and Diagnosis	7	5.5	10	9	6	6	3	4	8
Vocational Counseling for Student	3	5.5	5	1	6	2	1	9	4
Securing Tuition for Training	9	9	12.5	5.5	9	9	8	6.5	9
Assistance in Job Placement	1	7	7	2	2	1	2	6.5	10
Securing Prosthetic Appliances	10.5	13	15	4	7	14	6	3	6
Parent Counseling Services	5	10.5	4	5.5	14	11	12	15	15
Securing Funds for Trainee Supervision by Employers	15	15	14	15	15	15	15	12	13
Mainstreaming	2	1	1	11	8	5	11	13	14
Use of Hands on Training Experience	12	10.5	9	3	1	3	14	14	6

Professional Training

Professional training referred to those skills, training, activities, or functions that were related to the respondents' training/preparation for working with the handicapped. Respondents were asked to react to a list of types of training in terms of (1) its importance; (2) its status, the overall emphasis being placed on providing that type of training; and (3) their preparation in terms of what preparation the respondent had and what preparation he felt he should have had.

Importance

Presented in Table 8 were the mean ratings of how personnel from each agency responded to the importance of a series of different types of training to prepare individuals to work with the handicapped.

Overall, vocational education personnel placed less emphasis on the importance of training to work with the handicapped. This would be as expected, since the primary function of the other two agencies was to work with the handicapped, whereas this was a secondary responsibility for vocational education.

However, consideration of the rank orders of importance provided some insight. All agencies felt that inservice training to familiarize personnel of each agency with the functions of other agencies was of least importance. However, when looking at the mean rating, it was still considered to be important, but to a lesser degree than other areas. This could lead one to believe that each was congizant of the other's programs and the services available from each agency. Analysis of other data indicated that this was questionnable.

Both special education and vocational education felt it was important to receive pre-service training and training in adapting material and instructional approaches to meet the needs of the disadvantaged. Inservice training ranked

TABLE 8

AGENCY RATINGS OF THE IMPORTANCE OF
VARIOUS TYPES OF PROFESSIONAL TRAINING

Training	Agency					
	SE		VE		VR	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Pre-service Training to Work with Handicapped	4.54	2	4.11*	1.5	4.07*	3
Training in Adapting Material, Procedures, and Instructional Approaches to meet the needs of the Handicapped	4.70	1	4.11*	1.5	4.05*	4
In-service Training to Work with the Handicapped	4.30	4	4.01*	3	4.32	1
In-service Training to Familiarize Personnel of each Agency with the Functions of the Other Agencies	4.27	5	3.69*	5	3.98	5
Training of Personnel to Provide Individualized, Personalized Services to the Handicapped	4.46	3	3.96*	4	4.19	2
TOTAL	4.45		3.98*		4.12*	

*$p < .05$

in the middle for vocational education, leading the researchers to believe they felt that specialists in working with the handicapped in vocational education should be prepared at the pre-service level, or that support specialists should be available to teachers of regular programs.

Level of Preparation

For each type of professional training, the respondents were asked to rate the amount of preparation they possessed and the amount they felt they should have had in each area. These data appeared in Table 9. Due to space limitation on the table, the rank column was again eliminated and the number in parenthesis following each mean rating represented the rank order.

Respondents consistently rated themselves as needing more preparation than they possessed.

Differences in rank order by agency were as follows: (1) special educators were quite consistent in thier ratings of "had" and "should have had" except for training of personnel to provide individualized, personalized services to the handicapped; (2) vocational educators ranked their need for inservice training to work with the handicapped considerable higher than the training they possessed and the training of personnel to provide individualized, personalized services to the handicapped as being more extensive than it should be; and (3) vocational rehabilitation personnel felt that they had been provided more than a proportional amount of inservice training to work with the handicapped and insufficient inservice training to familiarize themselves with the functions of the other agencies.

Status

For the area of professional training, the status ratings had a somewhat different meaning than for direct instructional services or support services.

TABLE 9

AGENCY RATINGS OF THE LEVEL OF PREPARATION
HAD AND NECESSARY FOR VARIOUS TYPES OF PROFESSIONAL TRAINING

Training	Agency					
	SE		VE		VR	
	Had	Should	Had	Should	Had	Should
Pre-service Training to Work with Handicapped	3.73(2)	4.2(2.5)	2.01(3)	3.68(3)	3.01(3)	3.99(3.5)
Training in Adapting Material, Procedures, and Instructional Approaches to Meet the Needs of the Handicapped	3.77(1)	4.46(1)	2.17(1)	3.71(1)	2.72(4)	3.99(3.5)
In-service Training to Work with the Handicapped	3.30(4)	4.02(5)	1.93(5)	3.69(2)	3.30(1)	3.64(5)
In-service Training to Familiarize Personnel of each Agency with the Functions of the Other Agencies	2.34(3)	4.18(4)	1.98(4)	3.56(4)	2.56(5)	4.09(2)
Training of Personnel to Provide Individualized, Personalized Services to the Handicapped	3.20(5)	4.21(2.5)	2.02(2)	3.53(5)	3.24(2)	4.11(1)
TOTAL	3.27	4.22	2.02	3.63	2.97	4.12

Here, status referred to the respondents' perception of the overall emphasis placed on each type of training by themselves and the other agencies. In other words, vocational education would rate themselves and each of the other two agencies in relation to the status of professional training, i.e., Have we or the other agencies placed enough emphasis on each type of training?

Special education's rating of the status of various types of professional training provided by each agency appeared in Table 10. Overall, they rated vocational rehabilitation as being provided the best training. They rated themselves as being the poorest prepared in familiarization with the functions of other agencies. They also rated other agencies low in this area. Vocational educators were rated the lowest in inservice training to work with the handicapped.

As did special education, vocational education personnel rated vocational rehabilitation as having the highest training status. These data appeared in Table 11. Special education was ranked lowest, with significantly lower ratings for three of five types of training. Apparently, vocational education personnel were more favorably impressed with rehabilitation programs than with special education. Considering rank order of training status, vocational educators were consistent in the rankings across groups. The status of inservice training to work with the handicapped was ranked first and preservice second. Inservice training to familiarize personnel of each agency with the functions of the other agencies ranked last. All agencies appeared to be saying that nothing much was being done by anyone to increase interagency understanding.

Data relative to vocational rehabilitation ratings of each agency's professional training status were presented in Table 12. Overall, special education received the lowest ratings, with their own rating being highest. Rehabilitation personnel felt that inservice to familiarize personnel of each agency with the functions of the other agencies was at least receiving medium

TABLE 10

SPECIAL EDUCATION'S RATING OF THE STATUS OF
VARIOUS TYPES OF PROFESSIONAL TRAINING PROVIDED TO PERSONNEL IN EACH AGENCY

Training	Agency					
	SE		VE		VR	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Pre-service Training to Work with Handicapped	3.05	2	2.90	3	3.05	3
Training in Adapting Material, Procedures, and Instructional Approaches to Meet the Needs of the Handicapped	2.92	4	3.03	2	3.12	2
In-service Training to Work with the Handicapped	2.97	3	2.76	5	2.97	4
In-service Training to Familiarize Personnel of each Agency with the Functions of the other Agencies	2.53	5	2.87	4	2.82	5
Training of Personnel to Provide Individualized, Personalized Services to the Handicapped	3.39*	1	3.59*	1	3.88	1
TOTAL	2.97		3.03		3.17	

*p< .05

TABLE 11

VOCATIONAL EDUCATION'S RATING OF THE STATUS OF
VARIOUS TYPES OF PROFESSIONAL TRAINING PROVIDED TO PZRSONNEL IN EACH AGENCY

Training	Agency					
	SE		VE		VR	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Pre-service Training to Work with Handicapped	3.37*	2	3.72	2	3.89	2
Training in Adapting Material, Procedures, and Instructional Approaches to meet the Needs of the Handicapped	3.27*	3	3.68	3	3.75	3
In-service Training to Work with the Handicapped	3.43*	1	3.76	1	4.02	1
In-service Training to Familiarize Personnel of Each Agency with the Functions of the other Agencies	2.42	5	2.75	5	2.83	5
Training of Personnel to Provide Individualized, Personalized Services to the Handicapped	2.97	4	3.03	4	2.97	4
TOTAL	3.09		3.39		3.49	

*$p < .05$

TABLE 12

VOCATIONAL REHABILITATION'S RATING OF THE STATUS OF
VARIOUS TYPES OF PROFESSIONAL TRAINING PROVIDED TO PERSONNEL IN EACH AGENCY

Training	Agency					
	SE		VE		VR	
	$\bar{X}$	Rank	$\bar{X}$	Rank	$\bar{X}$	Rank
Pre-service Training to Work with Handicapped	2.19	3	2.42	4	2.53	4.5
Training in Adapting Material, Procedures, and Instructional Approaches to Meet the Needs of the Handicapped	1.90*	5	2.64	3	2.53	4.5
In-service Training to Work with the Handicapped	2.07*	4	2.31	5	2.64	3
In-service Training to Familiarize Personnel of Each Agency with the Functions of the Other Agencies	2.63	2	3.00	2	3.17	2
Training of Personnel to Provide Individualized, Personalized Services to the Handicapped	3.22*	1	3.61	1	3.93	1
TOTAL	2.40*		2.80		2.96	

*$p < .05$

to above medium emphasis. This was different than the ratings provided by the other agencies. They also felt that vocational education's lowest training priority was in providing its personnel with inservice training to work with the handicapped, with pre-service training ranking next lowest.

In summary, all agencies rated the status of training provided for vocational rehabilitation personnel as being superior to the other agencies. Special education was rated as being lowest. Vocational education rated themselves as possessing a high training status for inservice training to work with the disadvantaged. However, both other agencies gave vocational education its lowest rating in that area. Also, vocational educators rated themselves as having a low training status for training personnel to provide individualized, personalized services to the handicapped. However, the other agencies must have liked something vocational education was doing in that area of training, both ranking it first.

Cooperative Efforts

Presented in Tables 13, 14, and 15 were data pertaining to the results of efforts by special education, vocational education, and vocational rehabilitation at providing assistance to personnel within their own and each of the other two agencies. Also depicted were the perceived needs for assistance by personnel from each of the three agencies.

The following section contained a discussion, by agency, regarding intra and interagency efforts at providing and soliciting assistance with respect to each of the three agencies surveyed.

Special Education

Presented in Table 13 were data regarding cooperative efforts with respect to special education. The highest percentage of perceived need for assistance was expressed by personnel in vocational rehabilitation. However, the highest

TABLE 13

COOPERATIVE EFFORTS:
ASSISTANCE FROM SPECIAL EDUCATION

Agency Seeking Assistance	Number of Respondents	Number Indicating Need	Percentage	Number Seeking Assistance	Percentage	Number Getting Assistance	Percentage
Special Education	56	33	59%	31	94%	30	97%
Vocational Education	166	73	44%	41	56%	31	76%
Vocational Rehabilitation	94	59	63%	49	83%	39	77%

percentages of both those actually seeking assistance and those actually getting such assistance were indicated by respondents within special education.

A majority, or near majority, of respondents surveyed in all three agencies perceived at least one need for assistance from personnel in special education within one year of receipt of the questionnaire used in this study. Of those perceiving such needs, persons within special education were both more likely to seek and to get such assistance. Vocational rehabilitation personnel were more likely to perceive such a need than both special education and vocational education and, although they were more likely to seek assistance than their colleagues in vocational education, they were less likely to do so than those within special education. Of those in vocational education recognizing a need for assistance from special education, just over half actually sought such assistance. Three fourths of the individuals within vocational education and vocational rehabilitation, who actually sought assistance, were satisfied with the results. However, 97 percent of persons within special education, who sought such assistance, were pleased with the outcome of their efforts.

Based on the results it would appear that special education personnel were able to meet a substantial percentage of the requests made by personnel within all three agencies surveyed. They were, however, apparently better able to meet the needs and request the assistance of their own personnel.

Vocational Education

Presented in Table 14 were the cooperative efforts data with respect to vocational education. Both special education and vocational rehabilition personnel had higher percentages of perceived needs for assistance from vocational education than did personnel within that agency. Special education teachers were also more likely to seek the assistance of vocational education although personnel with vocational education were more likely to get the needed

TABLE 14

COOPERATIVE EFFORTS:
ASSISTANCE FROM VOCATIONAL EDUCATION

Agency Seeking Assistance	Number of Respondents	Number Indicating Need	Percentage	Number Seeking Assistance	Percentage	Number Getting Assistance	Percentage
Special Education	56	41	73%	33	80.48%	19	58%
Vocational Education	166	91	55%	69	75.82%	63	91%
Vocational Rehabilitation	94	67	71%	67	71.27%	50	75%

assistance than personnel of the other two agencies surveyed.

Better than a majority of the respondents in each of the three agencies surveyed perceived a need for assistance from vocational education during the year immediately prior to receiving the questionnaire employed to collect data for this study. The percentage of those seeking assistance ranged from 71 percent for vocational rehabilitation to 80 percent for special education. However, again, intraagency satisfaction with assistance obtained was considerably higher than that for interagency requests. Just over half the requests made by special education personnel resulted in satisfactory outcomes as compared with the nine of ten successful efforts with respect to individuals within vocational education. Vocational rehabilitation respondents indicated a higher proportion of satisfied requests than did their colleagues in special education; however, even their success rate was lower than that experienced by individuals within vocational education.

Again, success rates were higher for intraagency requests than for interagency requests.

Vocational Rehabilitation

Data pertaining to cooperative efforts within and between the three agencies surveyed in this study with respect to personnel of vocational rehabilitation are presented in Table 15. Respondents from special education indicated a higher percentage of perceived need for assistance from vocational rehabilitation than did either vocational education or vocational rehabilitation. However, personnel within vocational rehabilitation were both more likely to seek and get the needed assistance.

Better than a majority of personnel in both special education and vocational rehabilitation perceived the need for assistance from vocational rehabilitation within one year of receiving the questionnaire used in this survey. Only 37 percent of vocational education personnel perceived such a need. Of those

TABLE 15

COOPERATIVE EFFORTS:
ASSISTANCE FROM VOCATIONAL RAHABILITATION

Agency Seeking Assistance	Number of Respondents	Number Indicating Need	Percentage	Number Seeking Assistance	Percentage	Number Getting Assistance	Percentage
Special Education	56	36	64%	28	77.77%	17	60.71%
Vocational Education	166	61	37%	33	54.09%	26	78.78%
Vocational Rehabilitation	94	52	55%	49	94.23%	46	93.87%

recognizing a need for assistance a greater percentage of special education (77.77%) sought such help than did personnel in vocational education (54.09%). However, of those seeking assistance, vocational education was more likely than special education to be satisfied with the results of their efforts (78.78% vs. 60.71%).

By contrast, better than nine of ten vocational rehabilitation personnel sought assistance, and a similar ratio were satisfied with the outcomes of their requests. Again, intraagency cooperative efforts were more fruitful than inter agency efforts.

It was possible that intraagency requests fared better than interagency requests for all three agencies as a result of greater within agency understanding and comradery. However, it was also possible that the less successful, interagency efforts were the results of either limited access to individuals of the other agencies or inappropriate referral of such requests.

Types of Assistance Desired

Presented in Table 16 were the mean ratings provided by respondents with respect to their perceived needs for 10 different possible types of assistance. These means were based on rankings of 1 (highest) through 10 (lowest) indicated by respondents in this study. Rank order of priorities, based on these means, were also presented in this table for each of the three agencies surveyed. Mean ratings for special education ranged from 3.946 for educational diagnosis and prescription to 8.375 for prosthetic appliances. Vocational education means ranged from 4.711 for specific vocational training for the handicapped to 8.446 for prosthetic appliances. Vocational rehabilitation ratings ranged from 3.979 for vocational evaluation to 7.851 for prosthetic appliances.

The major needs expressed by special education were: (1) educational diagnosis and prescription, (2) specific vocational training, (3) vocational evaluation, (4) assistance in curriculum planning, and (5) inservice training on types

TABLE 16

MEAN RATINGS AND PRIORITIES OF NEED
FOR ASSISTANCE BY AGENCY

Assistance Needed	Special Education		Vocational Education		Vocational Rehabilitation	
	Rating	Pri-ority	Rating	Pri-ority	Rating	Pro-ority
Educational Diagnosis and Prescription	3.946	1	5.054	2	4.787	3
Vocational Evaluation	4.250	2.5	5.139	4	3.979	1
Medical Care and Examinations for Students	6.089	8	6.639	8	6.021	5
General Consultancy from the Other Agencies	6.250	9	6.801	9	6.340	6
In-Service Training on Working with the Handicapped	5.964	7	5.120	3	5.766	4
In-Service Training on the Types of Services Available from the Other Agencies	5.696	5	5.699	5	6.383	7
Curriculum Planning Assistance	5.286	4	5.964	6	7.447	9
Financial Assistance for Handicapped Students	5.946	6	6.584	7	6.872	8
Prosthetic Appliances	8.375	10	8.446	10	7.851	10
Special Vocational Training for the Handicapped	4.250	2.5	4.711	1	4.649	2
GRAND MEANS	5.036		6.016		6.010	

of services available from other agencies.

Special education respondents apparently viewed educational diagnosis and prescription, vocational evaluation, and specific vocational training as their primary needs for assistance in working with the handicapped. The first concern could be interpreted as indicating the opinion that the development of the basic academic skills was a vital prerequisite to vocational success for the handicapped. Training in the use of the diagnostic-prescriptive approach to education was typically emphasized in special education teacher education programs. However, the high priority ratings of this area as one in which they need assistance suggests that their preparation may have been inadequate.

The next two concerns were directly related to diagnosis and prescription, although they were referenced to vocational competencies rather than strictly academic skills. These would suggest that special education personnel viewed direct vocationally oriented intervention as being crucial to meeting the vocational needs of the handicapped. It would also suggest that such functions were not the concern of only those personnel in "vocational" programs. Special education personnel, although not generally charged with such responsibilities, apparently were interested in areas generally beyond the confines of their classrooms.

The remaining forms of assistance were essentially supportive services and general consultancy areas. Their higher ratings (lower priorities) could be interpreted as meaning that special education personnel did not view them as being particularly vital or at best vital only with respect to a more limited portion of the students with whom they work. Such ratings may also suggest that special education personnel were currently receiving the needed assistance or have received adequate training to accommodate such concerns on their own. In-service training to work with the handicapped may be an example of this latter

possibility, as special education teacher preparation has usually been referenced to rather intensive preparation for working with a particular type of handicapped student. Thus, the special education teacher may perceive less need for such assistance.

Vocational education's major needs for assistance were: (1) specific vocational training for the handicapped, (2) educational diagnosis and prescription, (3) inservice training on working with the handicapped, (4) vocational evaluation, and (5) inservice training on types of services available from other agencies.

A broader range of "high" priority assistance needs were identified by vocational education personnel. Over half of the possible forms of assistance received ratings that were at or below the overall grand mean of 6.016.

Vocational education personnel apparently perceived the need for assistance in vocationally oriented intervention (specific vocational training for the handicapped and vocational evaluation) as well as in the more academic areas (educational diagnosis and prescription and curriculum planning assistance). This group also suggested that the need for becoming more familiar with the services available from other agencies was a high priority concern. The need for training in areas related to working with the handicapped was indicated as being one of the highest priority areas.

Again, as was the case with special education, the general consultancy and supportive services forms of assistance were generally regarded as "lower" priority assistance needs.

The priority needs for assistance by vocational rehabilitation were perceived to be: (1) vocational evaluation, (2) specific vocational training for the handicapped, (3) educational diagnosis and prescription, (4) inservice training on types of services available from other agencies and (5) medical care and examinations for students.

Vocational rehabilitation personnel rated four of the ten possible types of assistance at levels indicative of "higher" priority. Vocational evaluation, specific vocational training for the handicapped, educational diagnosis and prescription, and in-service training on working with the handicapped each received mean ratings that were at or below the grand mean of 6.010.

Vocational rehabilitation's primary concerns were apparently similar to those indicated by the other agencies. Personnel in this agency perceived needs for assistance in the more vocationally oriented intervention and academic preparation areas. They also expressed the need for some assistance in preparing themselves to work with the handicapped in general.

It was interesting to note that all three agencies' personnel indicated vocational evaluation, specific vocational training for the handicapped and educational diagnosis and prescription as being "high" priority assistance needs. The obvious question would seem to be, If all three agencies need these types of assistance, who's going to provide it? The answer may be found, perhaps, at the teacher/counselor preparation level.

Problems Encountered

Presented in Table 17 were the mean ratings by respondents with respect to 10 possible types of problems encountered in working with the handicapped. Rank ordering of priorities was also provided based upon these mean ratings for each of the three agencies surveyed. The means depicted in this table were based on ratings provided by respondents ranging from 1 (highest) through 10 (lowest). The means computed with respect to these possible types of assistance ranged from 3.929 to 7.696 for special education; 5.211 to 7.681 for vocational education; and 3.255 to 7.574 for vocational rehabilitation.

Special Education

The major problems identified by special education were: (1) getting the

TABLE 17

MEAN RATINGS AND PRIORITIES OF PROBLEMS
EXPERIENCED IN WORKING WITH THE HANDICAPPED

Type of Problem	Special Education		Vocational Education		Vocational Rehabilitation	
	X Rating	Priority	X Rating	Priority	X Rating	Priority
Educational Programming	5.393	4	5.458	2	5.872	4
Educational Counseling	5.893	7	6.163	5	6.830	7
Understanding the Handicapped	7.696	10	6.084	4	6.702	6
Securing the Assistance of the Other Agencies	5.679	6	7.681	10	7.319	9
Professional Preparation	7.589	9	5.946	3	7.213	8
Vocational Counseling	5.589	5	6.735	8	6.287	5
Securing the Assistance of Colleagues	5.946	8	7.398	9	7.574	10
Findings Jobs for the Handicapped	4.929	3	6.416	7	3.255	1
Educating the Public Regarding the Handicapped	4.482	2	6.259	6	3.819	2
Getting the Handicapped into Appropriate Vocational Programs	3.929	1	5.211	1	4.3511	3
GRAND MEANS	5.712		6.335		5.922	

handicapped into appropriate vocational programs, (2) educating the public regarding the handicapped, (3) finding jobs for the handicapped, (4) educational programming, and (5) vocational counseling for the handicapped.

Apparently the most pressing problem special education personnel perceived themselves as having in working with the handicapped was that of getting such students into appropriate vocational programs. This problem may be particularly crucial in relation to the handicapped as they are included in that segment of the school population which has the greatest need for such training. Vocational counseling and securing the assistance of the other agencies were also identified as "high" priority problems and as such they may be interpreted as contributing to the major problem itself. With respect to the former concern, special education teachers may be experiencing difficulty in assisting the handicapped to make realistic vocational choices. If this were the case, the student may not select and enter the "appropriate" programs. For example, the "appropriate" program's director may not accept the student, once the choice is made, even if that choice was made with the special education teacher's endorsement. Further, these two problems may be related if the special education teacher can not acquire the vocational rehabilitation counselor's assistance in providing whatever supportive services may be necessary to either qualify the student for the "appropriate" program or to remain there once admitted.

Problems with educational programming, also identified as being of "high" priority, would suggest that the special education teacher may be having difficulties with academic training areas that may be prerequisite to vocational training. This could certainly be related to getting students into "appropriate" programs as well.

The remaining two "high" priority problems were also interpreted as being related. Regardless of the level of vocational competence a particular

handicapped student possesses, if the general public does not show empathy for the nature and needs of this group, finding jobs for them would obviously be very difficult.

The remaining problem areas, as a result of their higher item ratings, were apparently not as troublesome as the first six. Of these four it was interesting to note that professional preparation and understanding the handicapped were evidently the least pressing problems for special education personnel. Perhaps continued exposure to the handicapped may account for the reduced lack of concern for the latter problem. The findings with respect to the former were, however, somewhat in opposition to the results obtained in this study regarding special education's professional preparation.

Vocational Education

The major problems identified by vocational educators in working with the handicapped were: (1) getting the handicapped into appropriate vocational programs, (2) educational programming, (3) professional preparation, (4) understanding the handicapped, and (5) educational counseling.

The "higher" priority problems identified by vocational education selected some of the same concerns expressed by special education personnel (see Table 17). This group also had experienced problems with getting the handicapped into appropriate vocational programs and educational programming. However, these problems may be somewhat different in nature when approached from the vocational education teacher's perspective. For example, getting the handicapped into appropriate vocational programs may now be a matter of what should be done with an inappropriately placed student rather than one of simply initially getting him into a program or, agreeing to accept the initial placement.

Educational programming may now be a "product" problem as well as a "process" problem. The vocational education teacher may be having problems

with prescribing vocational instruction appropriate for her handicapped student(s), a "process" problem, or she may be having problems in dealing with a student who really doesn't have the basic academic skills which are prerequisites for her program, a "product" problem. The two are obviously related, but are still potentially quite distinct.

Educating the public regarding the handicapped was also identified by vocational education respondents as being a "high" priority problem. However, even this problem may be viewed in a somewhat different manner. In addition to the problem of simply educating the public, vocational education respondents also indicated that they, too, were having some difficulties in understanding the handicapped. This lack of understanding may be directly related to the problem of educating the public, plus the fact that vocational educators, as a group, have not been provided professional preparation in working with the handicapped.

Of the remaining four problem areas, finding jobs for the handicapped and vocational counseling may have been viewed by respondents as being beyond the vocational education teacher's responsibility or that there was no problem here. This could account for the apparent lack of difficulty in these areas.

The "lowest" priority problem areas as perceived by the vocational education respondents were securing the assistance of colleagues and securing the assistance of other agencies. Hopefully these ratings were the result of being able to get such assistance easily. If, however, these ratings reflected a lack of such efforts by vocational education teachers, an entirely different problem may be in existence; vocational education teachers may be attempting to work in isolation from other agencies.

Vocational Rehabilitation

The main problems encountered by vocational rehabilitation personnel were: (1) finding jobs for the handicapped, (2) educating the public regarding the handicapped, (3) getting the handicapped into appropriate vocational programs, (4) educational programming, and (5) vocational counseling.

Apparently the most prominent problem for vocational rehabilitation personnel was finding jobs for the handicapped. As was the case with special education, this problem may well be the product of the other identified difficulties. For example, both getting the handicapped into appropriate vocational programs and educating the public regarding the handicapped could have a direct bearing on finding jobs for the handicapped. "Appropriate" training is obviously vital, particularly for the handicapped, but again, the general public must have a receptive attitude before the handicapped can be vocationally placed.

Educational programming may for this agency's personnel be a similar type of problem as that suggested for vocational education. The vocational rehabilitation counselor may see this area as a "product" problem as he may not perceive himself as an educator, but rather as one who must deal with the product of the educational process. Obviously, the academic and social skills the prospective clients possess upon initial contact with the vocational rehabilitation counselor will influence the nature of the rehabilitation procedures to follow.

Without reiterating the discussion previously provided in the special education and vocational education sections relevant to the remaining items, it was hoped that these items were rated as being less troublesome as a result of successful experiences rather than a lack of such experiences. Comments regarding these items would be, as were earlier such remarks, purely speculative.

Apparently personnel in all three agencies had some similar types of problems in working with the handicapped. These problems, however, seemed to be related, yet distinctly different in nature. Rather than being simple variations of a single theme, such problems must be viewed from the prospective of each individual agency and their characteristic backgrounds and orientations with respect to working with the handicapped.

CONCLUSIONS

Service Delivery System

The data collected in the course of this study suggest that personnel of all three agencies (SE-VE-VR) seem to be able to meet both inter and intraagency requests for assistance. Generally speaking, each agency was more successful at meeting the latter type of request rather than the former. However, it appeared that the probability of acquiring assistance was good if the request was initiated. This conclusion, when considered with the data regarding the somewhat vaguely defined responsibility assignments for the various services and functions surveyed in this study, would seem to suggest that effective delivery of services to the handicapped may be contingent upon the mutual cooperation of personnel in all three agencies.

Cooperative Arrangements

The lack of role definition, and the desire to clarify those roles, expressed by respondents from all three agencies would further support the need for cooperative agreements among the agencies. Meeting the needs of the handicapped is not an endeavor which should be approached by agencies or individuals in isolation.

Cooperative arrangements have been implemented in a number of other states, and to varying degrees, here in Kentucky. Continued movement in this direction would seem to be vital if we are to: (1) avoid service gaps; (2) avoid service overlaps and duplications; and (3) capitalize on the existing expertise of the personnel currently working in all agencies dealing with the handicapped.

Liaison Personnel

One initial effort at implementing, or at least encouraging, closer cooperation between the agencies surveyed in this study may involve the use of

liaison personnel at the local service delivery level. Individuals within each agency should be trained in the referral procedures, services and functions characteristic of each of the other relevant agencies. This person would in turn serve as the processor of requests for assistance and consultation from the personnel of his agency to the others and also as the recipient of requests made of his agency's personnel. As the recipient of these requests he would also be responsible for seeing that the requests were brought to the attention of the appropriate individuals within his field.

Service Delivery Model

In addition to these matters of cooperative efforts among and between the various agencies engaged in the processes of habilitation and rehabilitation of the handicapped, some specific suggestions for vocational education service delivery are also presented. The service delivery model depicted in Figure 1 represents a synthesis of national recommendations as well as those based on the data collected directly in the course of this study.

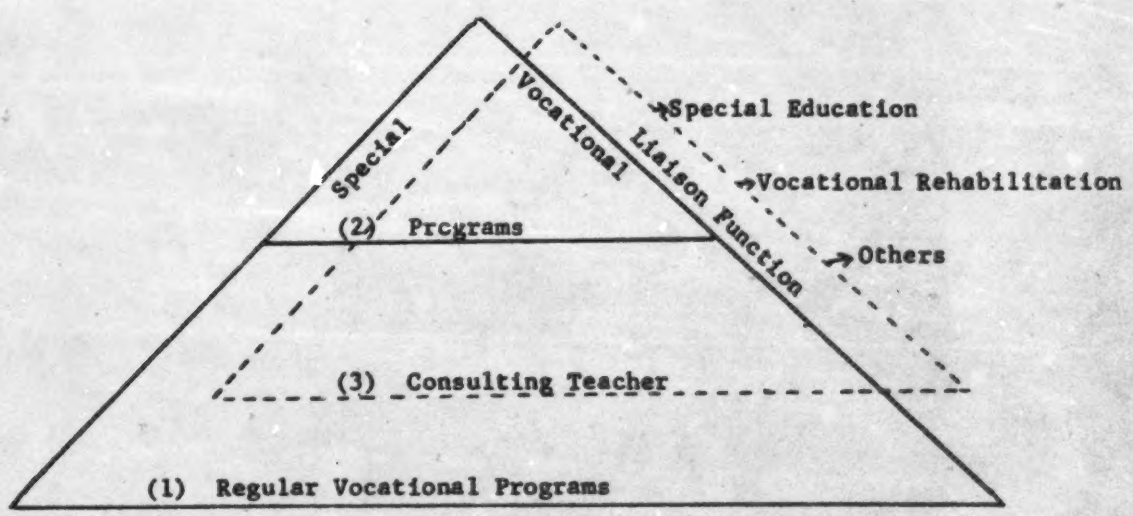

Figure 1. Proposed service delivery model for regional and district vocational education personnel. The solid triangle illustrates the program boundaries of the special and regular program teachers. The offset broken triangle illustrates the consulting teachers involvement with other agencies as well as personnel within vocational education.

The model suggests that there be three distinct levels of preparation for vocational education teachers in regard to working with handicapped students. These are: (1) the regular vocational program teacher, (2) the special vocational program teacher, and (3) the individual now missing from our program, the consulting teacher--the specialist in working with the handicapped who provides expertise to the other two levels. The regular program teachers (as a group) would possess the least special training to work with the handicapped, the special vocational teachers somewhat more, and the consulting teachers the most.

The consulting teacher would probably be housed in the regional office and have responsibility for providing assistance to the various types of programs operating in the region. (Figure 2)

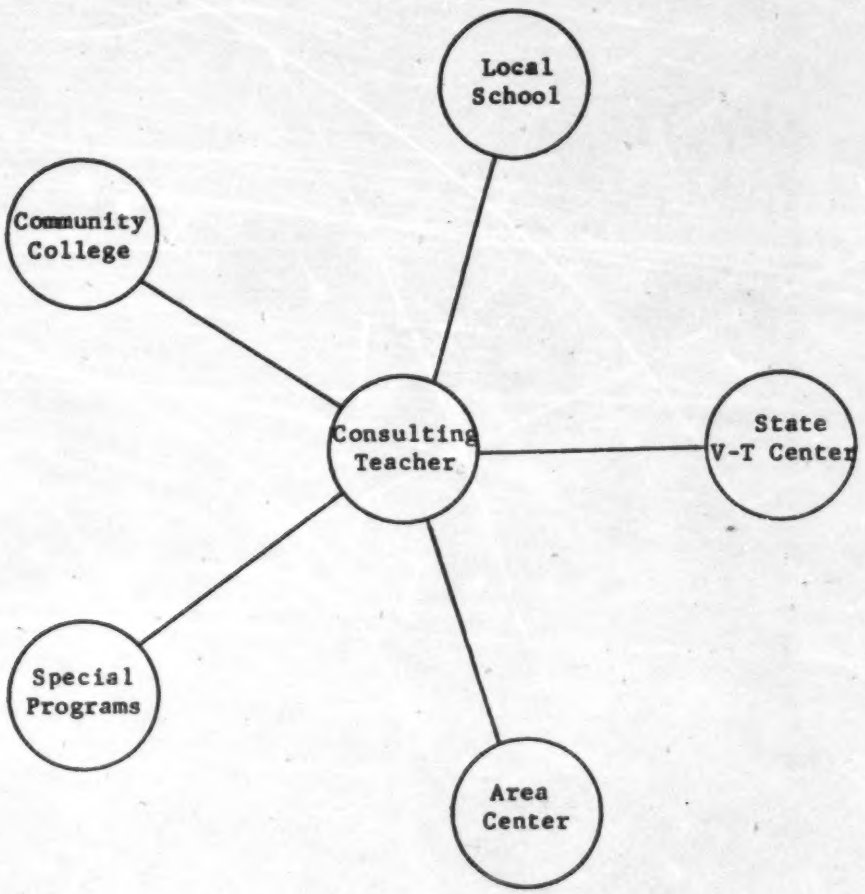

Figure 2. Proposed model depicting the various educational programs and agencies served by the consulting teachers.

With the levels and types of training suggested later in this document for (1) regular, (2) special and (3) consulting teachers, this model should provide for a feasible system of delivering vocational education services to the handicapped in Kentucky. The relative areas covered by the programs within the triangle were not meant to represent necessarily the proportion of handicapped students so enrolled. However, it is expected that the majority of handicapped students could be accommodated within regular programs if the regular teacher had the assistance of the consulting teacher. Those students whose problems were beyond the training capabilities of the regular teacher would be enrolled in Special Vocational Programs (SVP). The SVP teacher would, when feasible for students who show higher potential, assist the regular teacher in specifying objectives for such students, which, when accomplished, may permit re-entry to the regular program. The SVP teacher would also be afforded the services of the consulting teacher. The Consulting Teacher (CT) additionally acts as a liaison agent within the various vocational education programs and between these programs and those external to vocational education. Such external programs may include special education, vocational rehabilitation, and others engaged in activities related to the handicapped.

This model was based on the high probability that handicapped students will and should be mainstreamed into the regular school population whenever possible. Handicapped students who, with minor modifications to existing regular programs, could remain in the regular classroom would do so. The regular teacher who encounters instructional problems which may require assistance in the "special" methodological or programming areas would have available the services of a consulting or itinerate teacher. Thus, only those individuals who could not profit from the regular program even after modification, both by the regular and consulting teacher, would be referred to a SVP. When this latter alternative

becomes necessary, every effort should be made, with the cooperation of the regular, SVP, and consulting teacher, to identify objectives for the referred student which will permit the student to return to the regular program when criterion was met on these objectives.

The SVP should not be viewed as a "dumping ground" for students who cannot be managed by the regular vocational education teacher. The SVP should be responsible for dealing primarily with specific problems which the regular teacher may not be trained to accommodate. There may be some students who, because of the severity of their handicapping condition, may never be able to remain in a regular placement; however, not every student referred to the SVP should be restricted to staying there. It is quite possible that some students may have rather complicated problems in some areas but, once these problems or deficits are corrected, may be able to return to and profit from the regular program. With this type of student, the SVP teacher would receive a substantial segment of his students as a contractual basis. The terms of this contract would be based on assessment information pertaining to the student's abilities and needs. Specific objectives regarding these needs would be formulated and, with the cooperation of the regular teacher, an agreement would be documented which would clarify the entrance requirements to be imposed upon the student prior to re-entering the regular progran.

The SVP teacher's task would then become one of assisting the referred student in acquiring the entrance skills dictated by the stated objectives. The consulting teacher's services would also be solicited, when needed, to design activities, aid in programming and to modify or develop materials which could be used with the particular student in meeting these objectives.

The consulting teacher would serve in two major capacities. The first has already been mentioned, that of being a resource person and consultant to the regular and/or SVP teacher. The second role is that of acting as a liaison

person. The consulting teacher would receive and refer to appropriate personnel, both within and external to vocational education, requests for various forms of assistance which may be required to meet the vocational needs of the handicapped. This role would not necessarily be restricted to processing requests made by vocational education personnel; the consulting teacher may also handle and refer requests made of vocational education by other persons interested in vocational education in general. This latter set of responsibilities is particularly vital to insuring the inclusion of the variety of services that may be required to provide the handicapped with the maximum chance for successful vocational training and placement.

Certification Considerations

If the trend of mainstreaming (currently popular in the field of special education)continues, vocational educators can expect to find more students in their classes who might be identified as handicapped. Successful mainstreaming of the handicapped into the "regular" classroom programs will require a closer working relationship than may exist at present between the special vocational teacher and the vocational education instructor. The special vocational teacher role may shift from being one of a self-contained classroom instructor to that of a consultant to the regular teacher, an itenerant teacher who would assist the regular teacher in dealing with handicapped students in the regular class, or a resource room teacher who would work with the handicapped students for regular times during the week in an effort to accomplish specific objectives established for the student by both the regular and the special teacher.

Courses and/or Competencies

Regardless of the direction followed by individual school systems, the presence, on an increasing basis, of the handicapped student in the vocational

teacher's class might necessitate some restructuring of the current certification requirements for a vocational teacher. Courses currently offered through special education and psychology programs might become requirements for vocational education personnel as well as for "strict special education majors." Such additions should include characteristics, methods of teaching and behavior modification courses as they pertain to the broad spectrum of handicapping conditions. Successful completion of at least one three hour course in each of these areas should result in the vocational teacher acquiring at least the basic understandings of the learning styles and teaching methodologies peculiar to working with the handicapped which would be necessary for working with such students in the regular classroom. These courses would also be extremely beneficial to the vocational teacher by better equiping such personnel to work with the special teacher. SVP teachers should definitely take these courses.

An additional need may also be met by including the three previously mentioned courses in the certification requirements for vocational education teachers. These courses typically require practicum experience--working directly with the handicapped. Thus, the prospective teacher would, in a controlled situation, have the opportunity of actually experiencing what it is like to deal with a handicapped student prior to having such an individual or group of individuals assigned to his classroom. However, even though these special education type courses might be of great value to the vocational teacher, fixed program requirements might make it impossible to include them in requirements for graduation and certification.

If the previously mentioned courses, per se, are not included in the preparation programs for vocational education teachers, efforts should be made to adjust the current content of related education and vocational education courses to provide similiar practicum experiences designed to develop these competencies. Even without taking a complete, typical, three-hour course in

these areas, the prospective vocational education teacher should be afforded the opportunity of acquiring at least the minimal level of knowledge and competence in these areas as would be required for working with the handicapped.

Differentiated Training Requirements

The degree to which the prospective and in-service teacher should be trained in such areas as the use of behavioral modification techniques, specific methodological concerns and the characteristics, including learning styles, as pertain to the handicapped, may best be determined by the nature of the contact the particular teacher may have with this group. The service delivery model (see Figure 1) suggested in this document may be used to illustrate this differentiation of training requirements. The regular vocational education teacher, in view of the rather structured exisiting training program, may be restricted in the amount of "special" preparation he may undertake. At minimun, however, these individuals should be exposed to the nature of various types of handicapping conditions by perhaps visiting residential institutions for the retarded and multiple handicapped, special education classrooms, and exemplary programs involving the handicapped in vocational, special and regular education in connunction with his regular training programs. Such exposure may be limited to observation; however, even the mere act of watching such handicapped individuals at work and play may be beneficial in dispelling some of the myths that may enshroud the handicapped in the eyes of the naive layman. These visits should be supplemented in methodological areas by perhaps short duration workshops staffed by special education and special vocational program personnel. These workshops could be offered both on campus and in the field for preservice, as well as for inservice teachers.

The SVP teacher, by virtue of their more extensive contact with the handicapped implied in the proposed service delivery model, should receive proportionally more "special" training. These individuals should be required to

engage in direct contact practicum activities with individual representative of at least the more prevalent handicapping conditions, such as the educable mentally retarded, the physically handicapped, and the learning disabled. These experiences should occur following more detailed training in the characteristics and methodologies of teaching the handicapped in addition to those activities suggested for the regular vocational education teacher.

The consulting teacher should, beyond the suggested experiences for the regular and special vocational program teacher, engage in practicum activities with individuals representative of all recognized handicapping conditions. As this teacher will also be expected to function as a liaison within vocational education and between vocational education and the other agencies responsible for working with the handicapped, the consulting teacher's preparation program should also include components designed to thoroughly familiarize him with the service functions and referral procedures of these other agencies.

The suggestions just presented, regarding certification consideration for vocational education teachers, are not meant to imply an intention to make the vocational education teacher fit the mold of a special education teacher. Rather, it is recommended that at least minimal levels of competence in areas related to working with the handicapped should be required of vocational education teachers if they are to effectively meet the vocational needs of this group. Currently, certification changes are being proposed in special education which reflect a similar philosophy. If these changes are accepted by the Division of Teacher Certification, special education teachers will be required, regardless of their area of exceptionality to engage in coursework and practicum experiences which will involve:

1. Procedures for modifying curriculum to include concepts related to preparation of exceptional children for employment;
2. Establishing and implementing work study programs;

3. Vocational and career education instructional methods and materials, and;
4. Roles and responsibilities of vocational rehabilitation and other agencies in preparation of exceptional children for gainful employment.

Vocational education preparation programs should, perhaps, follow this lead by taking steps to see that their graduates acquire at least the skills discussed in this section which would better prepare them to deal with the handicapped. If necessary, the certification requirements for vocational education personnel should also be revised to insure the inclusion of these skill development activities.

Personnel Training: Preservice and Inservice

In addition to the considerations for certification just discussed, the data collected in this study also suggest the need for training in other areas related to meeting the vocational needs of the handicapped. Currently existing vocational education courses, or perhaps entirely new courses, should offer the pre-service and in-service teacher with the opportunity of becoming more familiar with the services and functions of the various other agencies who work with the handicapped. The vocational education teacher, in order to employ most effectively the services of such agencies as special education and vocational rehabilitation, must be thoroughly aware of the nature of and procedures required of acquiring these services.

The findings of this study were consistent with the earlier findings of a study conducted by Holmes and Omvig during the summer of 1973. Approximately forty teachers and aides, participating in a two week workshop for vocational education teachers of the handicapped and disadvantaged, rated the session on

"Supporting Services" as being highly informative and highly useful. These findings support the authors' contention that vocational education personnel perceive the need for being more aware of the types of services available for the handicapped through agencies other than their own.

Inservice workshops should be conducted to assist the vocational teacher in acquiring the skills needed to task analyze skill development activities, modify materials for use with poor readers, and to use operant procedures within the regular classroom setting, to mention but a few. These workshops should involve field personnel from special education and vocational rehabilitation as well as individuals from within vocational education.

The data afforded by this study suggest that programs for prospective vocational education personnel, as well as inservice personnel, should also enhance training efforts in some rather specific "pure vocational areas." Respondents from vocational education perceived needs for additional training and experiences specifically in the areas of occupational exploration, specific vocational training, and skill improvement training. These findings could be interpreted to suggest that current training programs are capable of preparing vocational instructors to deal with the "average, middle class" student. However, meeting these training needs for the handicapped and disadvantaged may require supplemental preparation in these rather basic pursuits.

The need expressed by vocational education respondents for additional training in the development of communication skills (priority 1 for training, should have had) and in the area of basic academic training (priority 5 for training, should have had) may indicate that the vocational educator's role, in relation to dealing with the handicapped and disadvantaged, goes beyond purely vocational skill development concerns. If vocational education teachers are to assume more responsibility in these matters, their training programs will have to reflect more emphasis in these areas. Vocational education preparation

programs may need to require the inclusion of some of the more basic methodology courses characteristic of straight education majors (special and/or regular) and study of language functions related to communication. The former need may be met via coursework in the methodology of special education. Such courses typically involve the development of skills in task analysis, writing behavioral objectives, formal and informal assessment, behavioral management, social development, and language development as well as procedures directly related to the various specific academic areas. The development of communication skills needs may be accomplished by training in course work which emphasizes the development of language and the related communication skills. The inclusion of language development training would better enable the vocational education teacher to assist handicapped and disadvantaged students develop the prerequisite abilities (language) for communication as well.

Field Experiences

Field experiences should be stressed as a method of better equipping our teachers, at all levels, to work with the handicapped. Training might, in some cases, take place entirely in the field. In other cases, the field experience might be designed to supplement course work. Such experiences might include: internships, doing case studies with practicioners on actual cases, field trips, practicums, or visits to exemplary programs in Kentucky and across the United States to gain first hand knowledge of their operation.

Training Needs

Based on the findings of this study, the greatest need for additional training, as expressed by the vocational education teachers, were: (not presented by priority ranking)

-Understanding the handicapped and their needs

-Knowledge of other agencies and community resources

-Parental counseling

-Poviding the student with better communication skills and academic preparation

-Curriculum modification

-Evaluation and diagnosis

-Prescriptive teaching

-Knowledge of the range of jobs which might be open to the handicapped (to destroy the myths about and stereotyping of the handicapped)

-Behavior modification.

Summary

Meeting the vocational needs of the handicapped in Kentucky may involve efforts by personnel of vocational education, and others, in the following areas:

1.0 Service Delivery at regional and district levels

1.1 Establishment of cooperative agreements with vocational rehabilitation and special education to:

1.1.1 avoid service gaps;

1.1.2 avoid unnecessary service overlaps, and;

1.1.3 make the best use of existing personnel in all three agencies

1.2 Training of liaison personnel to encourage inter and intra agency cooperation and communication .

1.3 Differentiation of responsibility assignments within vocational education for regular program teachers, special vocational program teachers and consulting teachers.

2.0 Certification Requirements

2.1 Stress practicum experiences with the handicapped

2.2 Include "special" teaching methodology, behavior modification techniques and characteristics as pertain to the handicapped in vocational education training programs either as new courses or via modified existing curriculum.

2.3 Differentiate certification requirements by increasing special training and practicum experiences in accordance with the level and range of involvements with handicapped individuals from that for the regular program teacher through the consulting teacher.

3.0 Personnel Training: Preservice and Inservice

3.1 Make more extensive use of pre- and in-service courses and workshops involving field personnel of special education and rehabilitation as well as vocational education to provide the potential and field vocational education personnel with opportunities to acquire skills and knowledge related to:

3.1.1 Characteristics of the handicapped

3.1.2 Methodological approaches known to be effective in working with the handicapped such as task analyses, modification of materials, behavior modifications, etc.

3.1.3 Specific vocational skill and skill improvement training

3.1.4 Social development and communication skill development

3.1.5 Awareness of the services and functions of other relevant agencies who work with the handicapped.

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